

Coastal Markers



Volume 7, Issue 4

MISSISSIPPI DEPARTMENT OF MARINE RESOURCES

Spring 2004

DMR, GCRL win national fisheries research award

One of the top fisheries research awards in the nation went to the Mississippi Department of Marine Resources (DMR) and the Gulf Coast Research Laboratory (GCRL) during the Mississippi Commission on Marine Resources (CMR) meeting on Feb. 17, 2004.

The national award recognized the partnership between DMR and The University of Southern Mississippi's GCRL to investigate sargassum. The bright gold algae plays a critical role in the survival of larval and juvenile offshore fish in the northern Gulf of Mexico, often collecting into surface mats that may rival the size of a football field.

"This project has increased significantly the knowledge and scientific understanding of sargassum as a habitat for these important marine species. This knowledge



Douglas Stang (left), president of the Fisheries Administrators Section of the American Fisheries Society, presents William "Corky" Perret (center), director of the DMR's Office of Marine Fisheries and James Franks, fisheries biologist with the University of Southern Mississippi's Gulf Coast Research Laboratory, with the 2003 Sport Fish Restoration Award for "Outstanding Project of the Year."

will enable us to make appropriate decisions relative to managing these valuable resources," said DMR Executive Director

William Walker.

In ceremonies at the CMR meeting Douglas L. Stang, president of the Fisheries Administrators Section of the American Fisheries Society, presented the Section's 2003 Sport Fish Restoration Award for "Outstanding Project of the Year" to William "Corky" Perret, director of the DMR's Office of Marine Fisheries, and project leaders with the Southern Miss laboratory.

"This award pays tribute to the excellent professional research staff that is providing scientific data on the importance of sargassum habitat in the larval and juvenile stages of many marine finfish species," said Perret.

The Fisheries Administrators Section pre-
See AWARD, page 6

Smart Growth conference for south Mississippi to be held May 10-12

Smart growth techniques, sustainable development designs and numerous other topics that relate to natural resource conservation and economic development issues unique to coastal Mississippi will be discussed at the fifth annual Coastal Development Strategies Conference (Smart Growth), May 10-12 at Grand Casino Biloxi, Bayview Convention Center. (Pre-conference activities include a golf tournament for conference registrants on May 10.) The Comprehensive Resource Management Plan (CRMP) is hosting the event in association with CRMP stakeholders, the Mississippi Gulf Coast Chamber of Commerce and the Harrison County Development Commission.

CRMP is a program within the DMR. CRMP's mission is to develop a plan to sustain Mississippi's coastal resources while

providing a healthy economy in the region.

"The Coastal Development Strategies Conference spotlights smart growth issues, bringing together all the people knowledgeable about economic development as well as environmental managers," said DMR Executive Director William Walker. "Smart growth balances development and natural resources. This group working together can achieve the balance necessary to allow for the economic development that is so important to our state while at the same time preserving the equally important quality-of-life issues that our citizens have come to expect living here on the Mississippi Gulf Coast. We are really very fortunate to have Leland Speed, Executive Director of the Mississippi Development

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1972, as amended.*

***Managing your marine resources
today...for a sound tomorrow.***

Director's Notes

Dr. William Walker



Summer on the Mississippi Gulf Coast is always special. It is the time of year when the Sound offers up a smorgasbord of seafood delicacies. Visitors and residents alike will enjoy its bounty as the shrimp harvest is served up in seafood houses and restaurants all along the Coast. There's nothing quite like freshly boiled shrimp, new potatoes and corn after a day of basking on the beaches or chasing speckled trout and reds across the front beach flats. And, there's no place quite like the Coast to experience these delights.

Midsummer features the Mississippi Deep Sea Fishing Rodeo where anglers get their chance to bring in the big one and compete for prizes and recognition among their peers. Each year, this, the Granddaddy of all fishing contests, results in a number of new state records being set; and 2004 at Rice Pavilion will be no different.

Here at the Department of Marine Resources, we have just successfully completed a collection of derelict crab traps and continue to remove abandoned wrecks from our coastal waters. That this endeavor is beneficial is evidenced by an overall reduction in traps from last year. Efforts like these serve to further enhance the scenic qualities and intrinsic beauty of the Coast.

The continued siting of nearshore, low-profile artificial fishing reefs and similar deepwater, offshore structures will do much to keep Coast sportsmen happy. Developing plans for a spotted seatrout stock enhancement program initiative with the Gulf Coast Research Laboratory will also help ensure a healthy resource and enjoyable fishing today and for years to come.



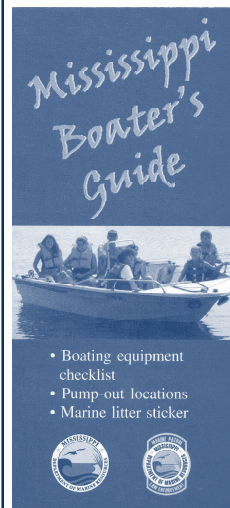
Executive Director

**Boat and Water Safety Course
Schedule (April-June 2004)**

All classes are free. Preregistration is required. Class dates are subject to change. For details, call the DMR Boat and Water Safety Bureau at (228) 435-1332.

- **May 1**, Mississippi Power Co. Auditorium, 300 U.S. 90, Bay St. Louis, 9 a.m.-4 p.m.
- **May 8**, Mississippi Power Co. Auditorium, 2326 Telephone Road, Pascagoula, 9 a.m.-4 p.m.
- **May 19-20**, Mississippi Power Co. Auditorium, 300 U.S. 90, Bay St. Louis, 6-9 p.m.
- **May 26-27**, Bolton Building Auditorium, 1141 Bayview Ave., Biloxi, 6-9 p.m.
- **June 5**, Mississippi Power Co. Auditorium, 300 U.S. 90, Bay St. Louis, 9 a.m.-4 p.m.
- **June 12**, Bolton Building Auditorium, 1141 Bayview Ave., Biloxi, 9 a.m.-4 p.m.
- **June 14-15**, Mississippi Power Co. Auditorium, 2326 Telephone Road, Pascagoula, 6-9 p.m.
- **June 21-22**, Mississippi Power Co. Auditorium, 300 U.S. 90, Bay St. Louis, 6-9 p.m.
- **June 26**, Mississippi Power Co. Auditorium, 2326 Telephone Road, Pascagoula, 9 a.m.-4 p.m.
- **June 29-30**, Bolton Building Auditorium, 1141 Bayview Ave., Biloxi, 9 a.m.-4 p.m.

New brochure!



**Mississippi
Boater's
Guide**

- **Boating equipment checklist**
- **Pump-out locations**
- **Marine litter sticker**

Call (228) 374-5000 for your FREE copy.

Thank you!

A very special thanks to the following employees who contributed to this issue of Coastal Markers:

Lauren Bass, Tim Blocker, Dorothy Daniel, Dr. Fred Deegen, Dale Diaz, Traci Floyd, Marcia Garcia, Stanley Hamilton, Irvin Jackson, Joe Jewell, Ruth Posadas, Josh Rowell, Dave Ruple, Amy Taylor, Frank Wescovich and Dr. Mark Woodrey.



BioBlitz: *Species inventory, fun activities for all at Grand Bay NERR*

Discover what's in your backyard at the Grand Bay BioBlitz to be held April 30-May 1 at the Grand Bay National Estuarine Research Reserve (GBNERR) and Grand Bay National Wildlife Refuge in southeastern Jackson County.

Scientists will be conducting a 24-hour marathon inventory of plant and animal species found within the reserve and refuge. The public is invited to observe the scientists' activities and to participate in other organized educational activities such as bird banding, nature walks, stargazing and netting bats.

"The BioBlitz presents a unique opportunity for us to introduce the Grand Bay NERR to a variety of users," said David Ruple, GBNERR manager. "The educational activities will provide opportunities for people to learn about the importance of biodiversity and what we have right here on the Mississippi Coast. The technical teams of scien-

tists will help us to document the vast diversity of the NERR and contribute to basic information about reserve resources.

"Combining the technical and educational aspects of this event is one of the basic goals of the NERR," he said.

The GBNERR is operated by the DMR.

Major sponsors of the event include Chevron Pascagoula Refinery, Mississippi Department of Marine Resources, Mississippi-Alabama Sea Grant Consortium, Mississippi Power Company, National Oceanic and Atmospheric Administration, and U.S.

Fish and Wildlife Service. Parking for the event is at the Midway United Methodist Church, 9814 Old Stage Road, Moss Point, Miss.

Directions to parking area:

From Interstate 10, take Exit 75 (Franklin Creek Road Exit). Go south until you reach the U.S. 90 intersection and bear right. Drive approximately two miles west on U.S. 90. The church is located on the right. Follow signs to parking area.



BioBlitz illustration by Mary Ann Taylor. Taylor teaches art at Trent Lott Middle School in Pascagoula.

Schedule of Activities



Friday, April 30 (beginning at dusk)

Identify Frogs By Their Calls
Netting Bats
Calling All Owls
Blacklighting For Insects
Constellation Watch

Saturday, May 1

5:30 a.m. Wake Up With the Birds!
Sunrise Birding Cruise.
(Reservations required.)

The following activities begin at 9 a.m. and repeat throughout the day until 1:15 p.m.:

- Nature Photography
- Paddling Adventure
- Boat Tours at Bayou Heron
- Bird Banding Demo
- Bug Sweep
- Coastal Wildlife
- Savanna and Carnivorous Plants
- Prescribed Fire Demonstration
- Get Crabby
- Fishing Adventure

For more information, call the GBNERR at (228) 475-7047.

CONFERENCE, continued from page 1

Authority, participating as a speaker in this conference. It's absolutely necessary that the Mississippi Development Authority, the coastal governing bodies and the regulatory community move forward together smartly in providing for economic development on the Mississippi Gulf Coast."

The regional conference is designed for landowners, developers, boards of supervisors, mayors, city council members, lawyers, mortgage lenders, planners, landscape designers, federal agencies, state agencies, local and county governments, private and corporate entities, home sellers, home buyers and concerned citizens.

Topics of interest to Mississippi's six-county region are: Power of Partnerships; Connecting Industry and Neighbors: The Options for Sustainable Communities; The Economics of National Heritage Areas; The Port of Gulfport: Understanding Growth to Meet Demand; Smart Growth: Healthier Spaces for Work and Play; GIS: Landscape Changes; Casino & Hotel Smart Growth Initiative; and Stormwater and Nonpoint Source Education for Municipal and Elected Officials.

Keynote speaker Andrew J. Reese, vice president of AMEC Earth & Environmental, Inc., will discuss "Ten Commandments of Stormwater" Our Community, Our Home. Reese has over 25 years of experience in a wide variety of stormwater and water resource engineering and management roles,

and has worked in 48 states, and over 100 cities and counties across the United States. He was the senior author of the recent statewide Georgia Stormwater Management Manual and is currently supporting the Dallas-Ft. Worth Metro area in taking their stormwater program into an integrated quality-quantity based approach.

Cost of the conference is \$125 (\$50 for the first 50 college students and free to the first 25 high school students) and \$75 for optional golf tournament. Elected officials may attend conference for **free** with their completed registration form.

For more information or to register for this year's conference, contact the DMR at (228) 374-5000 or visit the DMR online at www.dmr.state.ms.us.

Derelict Crab Trap Cleanup:

More than 800 traps collected during closed season

The DMR recently wrapped up its 2004 closed season for crab traps and crab pots in shallow waters, held March 14, 2004 through April 3, 2004. This year, **856** derelict and abandoned crab traps were collected and recycled during the closed season by DMR and Gulf Coast Research Laboratory (GCRL) staff and volunteers.

This year's closed season was staggered, occurring for just one week in each of the three coastal counties. Volunteers removed 606 traps during the three volunteer cleanup days. In Jackson County, 13 volunteers in 5 vessels collected 343 traps. In Harrison County, 18 volunteers in 6 vessels collected 80 traps. In Hancock County, 23 volunteers in 7 vessels removed 183 traps from Mississippi's marine waters.

"We collected fewer traps and had increased participation, which is a good sign the program is working," said DMR Fisheries Biologist Traci Floyd.

Detailed data sheets filled out by volunteers identifying bycatch found in traps were tallied by GCRL (see textbox). Bycatch included blue crabs, stone crabs, horseshoe crabs, sheepshead, diamondback terrapin, toadfish, striped mullet, ground mullet, catfish and flounder, many of which were released live.

The Mississippi Soft Drink Association



DMR fisheries biologist Jimmy Sanders transfers derelict crab traps from a skiff at Ocean Springs Harbor to be recycled during a Volunteer Crab Trap Cleanup Day held March 27.

Thanks to everyone who volunteered and helped make our derelict crab trap cleanup a success!

Derelict Crab Trap Cleanup Stats

(The following data was recorded for 674 of the 856 traps collected.)

Volunteers	54
Traps with float lines	450
Dead crabs in traps	86
Live crabs released	1,313
Traps with crab bycatch	375

Other species found in traps:

Striped mullet, flounder, sheepshead, diamondback terrapin, ground mullet, hardhead catfish, toadfish, stone crab, horseshoe crab.

Source: Gulf Coast Research Laboratory



Harriet Perry, director of GCRL's Center for Fisheries Research and Development, crushes derelict traps to be recycled.



DMR fisheries staff from left, Doug Drieling, Traci Floyd and Rudy Balias return to Tucei's Fishing Camp in Gautier to unload derelict traps they picked up from the West Pascagoula River.

donated bottled water for volunteers.

Crab traps were removed from the following areas:

Hancock County

- St. Louis Bay

Harrison County

- Back Bay
- Fort Bayou
- Davis Bayou
- Biloxi Channel inward from a line from the east tip of Deer Island to Marker 18 east to the shoreline

Jackson County

- All areas in Jackson County except Fort Bayou, Davis Bayou and Back Bay

During last year's closed crab season 1,429 traps were removed from Mississippi coastal waters and transported to a recycling facility. Since the program's inception, Nov. 4, 1999, more than 5,000 abandoned traps have been removed from Mississippi marine waters through the Mississippi Derelict Crab Trap Removal Program.

The Derelict Crab Trap Removal Program, a joint effort of the DMR and GCRL, is funded by a CIAP grant administered by the Mississippi Department of Environmental Quality (MDEQ). The Coastal Impact Assistance Program is a federally sponsored program that provides funding for addressing statewide coastal issues. Additional funding was provided through the NOAA Community Based Restoration Program.



Volunteers Jeff Brenegan of Pearlington, Miss., and his daughter Melody Stewart of Bay St. Louis return to Bayou Caddy Marina with nine derelict crab traps they picked up during the Volunteer Crab Trap Cleanup Day held March 20, the last day of the shallow water closed crab trap season in Hancock County.

Derelict barges become fishing reef



The DMR, in association with Mississippi Gulf Fishing Banks, deployed three derelict barges on Fish Haven 2 in March. The barges were located near the Pascagoula River Bridge off U.S. 90 before being removed, cleaned and deposited as artificial fishing reef material. The DMR worked with Mississippi Gulf Fishing Banks to turn an aesthetically displeasing and navigational hazard into viable fish habitat. This project was funded through the Tidelands Trust Fund Program, supported by funds derived from lease rentals of tidelands and submerged lands through the Office of Secretary of State.

Oyster season: Low shrimp prices impact oyster fishery

Low shrimp prices caused many commercial fishermen to take up oyster fishing early this season. Oyster season opens in Mississippi in early October, and the fleet is relatively small. Each season the number of boats in the fleet generally grows by several boats per week until it peaks sometime in January.

During the 2002-2003 oyster season, the highest number of boats working Mississippi reefs on any one day for the month of October was 99. For the 2003-2004 oyster season, the highest one day total for October was 210—an increase of 111 boats.

“For many commercial fishermen the oyster season has been the only game in town. This season, many fishermen who would normally be shrimping during November and December started oystering in October,” said Dale Diaz, DMR Shellfish Program Coordinator. As of March 31, the total sacks harvested for the 2003-2004 season was **384,973**. Oyster season runs through April. The season total for 2002-2003 was 391,635.

FREE! Newly revised **Mississippi Gulf Coast Fishing Guide**



- Charter boat listing
- Inshore and offshore fishing reef coordinates
- Boat launch locations
- Marina listing
- Licensing information
- Bait and tackle shops
- Map of piers, boat launches, pump-outs and reefs

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DMR joins Gulf states, industry reps in DC to talk oysters

Oysters were the topic when representatives from Mississippi and other Gulf states met with Senators and Congressmen recently in Washington, D.C.

Mississippi industry representative and Gulf Oyster Industry Council Chairman Teddy Busick, DMR's Executive Director William Walker and DMR Marine Fisheries Director William “Corky” Perret joined other Gulf States oyster industry and resource agency personnel in a series of meetings aimed at increasing Congressional awareness, support and funding of issues that impact oyster production, consumer education, marketing and coastal erosion.

“Historically, oysters have been an extremely important part of the Mississippi Gulf Coast and are currently one of our most valuable fishery resources,” said Walker. “We want to do our part as resource managers and regulators to help ensure that this great tradition continues and grows.”

Senators Trent Lott and Thad Cochran and Congressmen Gene Taylor and Chip Pickering along with representatives from other Gulf States heard about the importance of their support in challenging California's ban on the sale of traditional raw oysters harvested in the Gulf States between April and October. Congressional support was requested in addition to the opposition already voiced by the Interstate Shellfish Sanitation Conference (ISSC) over a ban of a food that meets all federally established regulations for shellfish safety.

“Similar meetings held over the past nine years have been effective in providing Congress with the information they need to prioritize funding for oyster research that directly affect oyster production on the Mississippi Gulf Coast,” said Busick. “Results of these efforts have lead to funding for research aimed solely at addressing oyster issues in the Gulf of Mexico as well as monies for *Vibrio vulnificus* education.”

The Gulf States provide the bulk of the domestic oysters harvested and consumed in the United States. More than 70 percent of these oysters come from the Gulf, with over 50 percent being consumed raw. The Gulf States serve oyster consumers across the United States with more than 2 million oysters each day.

AWARD, continued from page 1

sents the award each year to the top project in the nation in each of three categories: sport fishery development and management, research and surveys, and aquatic education. This award program enhances recognition of the Federal Aid in Sport Fish Restoration program and highlights outstanding projects conducted by fisheries professionals.

"Our judges selected the sargassum study as the top project in the research and surveys category," Stang said. "This research is providing valuable new knowledge about a little known fisheries habitat and the importance of this habitat in the life cycle of many Gulf of Mexico fishes."

The investigation is funded by the U.S. Fish and Wildlife Service's Sportfish Restoration Program through the DMR. Project scientists are James Franks, Read Hendon, Dr. Eric Hoffmayer and Richard Waller, and Dr. Bruce Comyns with USM's GCRL; and Mike Buchanan with DMR.

"This project represents a critical study linking the importance of sargassum habitats and currents to a host of pelagic marine recreational species that are little understood," said Columbus Brown, U.S. Fish and Wildlife Service's Special Assistant to the Regional Director for Councils and Commissions.

Franks said the floating algae originates in the Sargasso Sea of the western Atlantic Ocean and enters the Gulf through the Yucatan Channel between Mexico and Cuba.

"Sargassum also forms into linear rows termed 'windrows' along the fronts," Franks said. "Larval, juvenile and adult fishes assemble at sargassum for food and protection. As a result, anglers also frequent the windrows, fishing for such open-ocean species as tuna, billfish, amberjack, dolphinfish, king mackerel, Spanish mackerel, cobia, tripletail and gray triggerfish."

Franks said a major focus of the work is describing habitat conditions and the importance of sargassum and frontal zones for early life stages of highly migratory species such as billfish and tunas. "Marlins, sailfish and bluefin, yellowfin and blackfin tuna have been significant components of our larval fish collections," he said. "Such information is of value to fisheries managers working to effect sustainable fisheries in the Gulf of Mexico."

The team of GCRL researchers and graduate students has used traditional assess-

ment methods of nets and divers from the 97-foot R/V *Tommy Munro* as well as innovative techniques using a remotely operated vehicle (ROV) for an underwater video census. They have documented species diversity, relative abundance and habitat requirements of larval and juvenile fishes associated with sargassum.

From 2001 through 2003, the GCRL team made 203 biological collections and 21 video samples. The collections contain more than 25,000 larval and juvenile specimens and represent 57 families and 135 species of fish. The fisheries biologists are continuing their research during 2004.

The Gulf Coast Research Laboratory is part of the Southern Miss College of Science and Technology.

Marine Patrol Citation Totals

(January-March 2004)

Shrimp	1
Crab	7
Oyster	45
Commercial Net Fishing	1
Live Bait	1
Miscellaneous Seafood	2
Recreational Fishing	14
Boat and Water Safety	22
Marine Litter	0
Miscellaneous	4

Boat and Water Safety Statistics

(January-March 2004)

Classes held	21
Students certified	273
Outreach events	2
Presentations	4
Boating accidents	0
Fatalities	0



Visit the DMR
online

www.dmr.state.ms.us

Sound Advice

Lt. Frank Wescovich



In this issue of the newsletter I will try to cover some boating equipment issues. There are a wide variety of items available on the

boating market that fall under the heading of equipment. Unfortunately, like any other buyer's market, some of these items are not what they are made up to be and prove to be worthless. I will start with the basics and show the difference in required equipment and recommended equipment for your boat.

First and foremost are **Personal Flotation Devices** or life jackets. All vessels are required to have a wearable PFD for each person onboard. In addition, vessels over 16 feet in length are required to have one throwable device such as a seat cushion or ring buoy. Lifejackets must be of the proper size to fit the individual and should be of a type suited to the intended use. They must be U.S. Coast Guard approved and have a Coast Guard approval number.

Fire Extinguishers are required on all boats that have built in fuel tanks, enclosed compartments or decks, covered bilges, or any other enclosed space where explosive vapors may accumulate. Fire extinguishers must be U.S. Coast Guard approved and have an approval number. They should be of the proper type and size for the boat on which they are used. We highly recommend that all vessels carry a fire extinguisher, whether it is required by law or not.

Sound Producing Devices are required on all boats to enable them to make an audible signal. These can be hand, mouth, or power operated and can be as simple as a plastic police whistle on a skiff or as elaborate as a compressor driven air horn on a large power vessel.

Visual Distress Signaling Devices such as flare kits or distress lights are required for all vessels operating on

See **SOUND ADVICE**, page 7

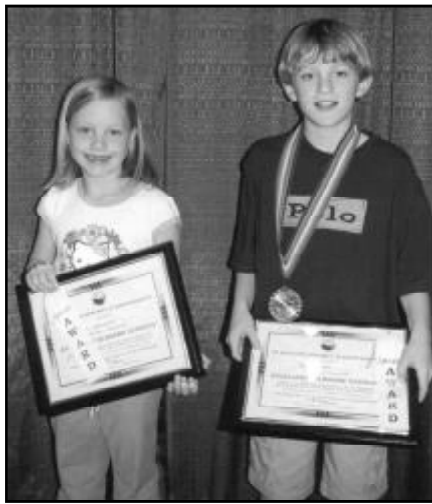
Young marine scientists win DMR excellence in marine science awards at Region VI science Fair

The DMR presented six local students with Excellence in Marine Science Awards at the Region VI Science and Engineering Fair held March 17, at the Mississippi Coast Convention Center in Biloxi. This is the ninth year the DMR has sponsored the award.

The DMR's Excellence in Marine Science Award was established to encourage local students to develop research projects involving Mississippi's coastal resources. With this award, the DMR hopes to encourage students to identify and find solutions to the Coast's environmental problems. Each winner received a certificate and monetary prize.

The award is presented by the DMR to outstanding Region VI science fair entries that deal with a marine-related issue. In consideration for the award, all project titles are reviewed and each student with a marine-related project is interviewed and questioned about his or her project. DMR judges rate the eligible projects and the ratings are compiled to determine the overall winners.

"We were excited to have over 50 exhibits qualify to be judged for our Excellence in



Kaitlyn Andraschko and Skyler Flowers



Ashley McLaughlin and Ashley Noblin



Christopher Peterson and Lindsey Manning

Marine Science Award this year," said Jennifer Buchanan, education coordinator at the DMR/Grand Bay National Estuarine Research Reserve. "Our winners' projects not only reflect a talent for research but also an interest in the stewardship of our coastal habitats."

Class I entries represent students in grades K through three, Class II entries represent students in grades four through six and Class III entries represent students in grades seven and eight.

Winners of this year's Excellence in Marine Science Award, in order of class, were:

- **Skyler Flowers**, Pecan Park Elementary, for his "Bayou Investi-Gator" Class I entry;
- **Kaitlyn Andraschko**, Woolmarket Elementary, for her "Hermit Crabs—Beach Combers of Ship Island" Class I entry;
- **Ashley McLaughlin**, Oak Park Elementary, for her "How Does Algae Behave?" Class II entry;
- **Ashley Noblin**, Oak Park Elementary, for her "Fishing for Chlorine" Class II entry;
- **Lindsey Manning**, Ocean Springs Middle School, for her "Survival of Grass Shrimp Embryos and Hatched Larvae at Different Levels of Dissolved Oxygen" Class III entry; and
- **Christopher Peterson**, Ocean Springs Middle School, for his "Settlement of Barnacles: Intertidal vs. Subtidal" Class III entry.

Thanks to DMR staffers who volunteered their time to judge and assist at 2004 science fairs:

Christine Johnson, Traci Floyd, Rhonda Price, Ben Bloodworth, Tom Van Devender, Jennifer Buchanan, Dale Diaz, Marian Dicas, Ruth Posadas, Jan Welker and Linda McCarthy.

SOUND ADVICE, continued from page 6

coastal waters or waters leading directly in to coastal waters such as larger rivers or bays. Day and night signals are required for all vessels over 12 feet in length and only night signals for vessels under 12 feet in length.

Navigation Lights are required for all boats that are operated from sunset to sunrise or in other periods of reduced or restricted visibility such as fog or rain.

These previously mentioned items are

the ones "Required" by law. There are a number of common sense items that should also be carried, but are not required. Anchor, paddle, bailing bucket, bilge pump, compass, charts, flashlight, tool kit, first aid kit, spare repair parts, spare mooring lines. Spare fuses. The list could go on and on. You are only limited by what your boat can logically accommodate.

Pick up one of our new Mississippi Boater's Guides (see page 2). It has a wealth of valuable information on boating. We also have other state and federal booklets and pamphlets available to assist you in prop-

erly equipping your boat. Feel free to call us at (228) 432-2820 for your Boating Safety needs.

Remember: Wear your Lifejacket. Safe boating is no accident.

Lt. Frank Wescovich oversees the DMR's Boat and Water Safety Program. He can be reached at (228) 432-2820 or (228) 435-1332.

See page 2 for a schedule of free boating safety classes.



Winter bird research initiated at GBNERR

As a newly designated reserve, one immediate goal of the DMR/Grand Bay National Estuarine Research Reserve (GBNERR) is to collect baseline data about the plants and animals of the area. With his background in bird conservation research, Dr. Mark Woodrey, Research Coordinator at the GBNERR, along with a colleague from the University of Georgia, Dr. Bob Cooper, initiated two bird survey projects at the reserve. In addition to providing background data on shorebird and marsh bird populations at the GBNERR, these projects focus on how the birds are using habitats and the resources of the reserve. This work was conducted with the assistance of two temporary research technicians, Brad Ogle and Tricia Rodriguez, both former students with Dr. Cooper at the University of Georgia.

Winter Marsh Birds

Little is known about the marsh bird communities along the northern coast of the Gulf of Mexico. In particular, there is essentially nothing known about the ecology of birds using the salt marshes along the Mississippi coast. Based on field observations of several birders from along the coast, several species of passerine songbirds have been found using the salt marsh habitats in Mississippi. Two of the more common species, the Marsh Wren and Seaside Sparrow, are resident species, meaning they live in southern Mississippi year-round. A third species, the Nelson's Sharp-tailed Sparrow, is a migratory bird commonly found here only during the winter months. Based on these observations, we focused our research efforts at the reserve on these three species of marsh birds.

To determine the abundance and habitat associations of these marsh birds, 17 transects throughout salt marsh habitats on the reserve were established, ranging from 200 to 500 meters in length. Every week each transect was walked, noting the birds seen and what type of vegetation they were in. Based on data collected, Marsh Wrens were almost four times as common during winter as either species of sparrow. About 40 individual Marsh Wrens per week were observed while only about 12 individual Seaside Sparrows and about 12 Nelson's Sharp-tailed Sparrows were seen.

The three species of birds varied in the habitats in which they were found. Marsh Wrens were habitat generalists; they were present on every transect in a wide variety of vegetation types



GBNERR research technicians Tricia Rodriguez and Brad Ogle survey shorebirds on the Grand Batture Islands.

ranging from pure stand of needlerush to mixed stands of needle rush, smooth cordgrass, and salt grass. Unlike the wrens, Nelson's Sharp-tailed Sparrows were habitat specialists. They were only present on four transects and were mainly found in two types of vegetation, salt grass and smooth cordgrass. Seaside Sparrows were neither habitat generalists nor specialists; they were present on many, but not all, transects, and used many different types of vegetation.

Data suggest that marshbirds rely on various habitats at the GBNERR. Thus, our monitoring efforts and management strategies must consider the diversity of salt marsh habitats found on the reserve. GBNERR staff plan to use this data to estimate population sizes of the three common species, and compare these with other salt marsh habitats found in the United States. Next winter, more survey transects will be established on the reserve to further characterize the habitat as-

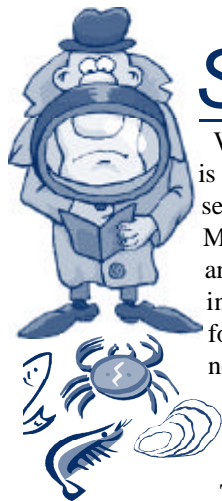
sociations of winter marsh bird communities.

Winter Shorebirds

Estuarine habitats are thought to be some of the most important areas for migratory shorebirds throughout the world. Here in our backyard, shorebirds are commonly seen throughout the year at the GBNERR. However, beyond noting the species seen during our field activities at the GBNERR, little is known about the kinds and numbers of shorebirds using the area at any time during the year. So, a survey and monitoring program was begun to better understand the shorebird communities which use the exposed mud and sand flat habitats on the reserve.

To do this work, weekly shorebird surveys were conducted on the Grand Batture barrier islands, where there is much exposed mud and sand at low tide. In addition to this larger mud flat habitat, while boating through the reserve, shorebirds using areas of exposed mud along the fringes of bayous and tidal creeks were also noted. Weather data (temperature, wind speed, cloud cover), bird species, activity (feeding, resting, other), and the habitats in which they were observed feeding (mud, sand, water) were recorded.

The most common species observed throughout the reserve was the Dunlin but other commonly seen species included Black-
See NERR NOTES, page 9



Seafood Safety Corner

Winter has passed, and spring is upon us, which means oyster season will be closed soon and Mississippi seafood dealers and processors will be preparing for routine, follow-up and renewal of certification inspections. The Seafood Technology Bureau has been busy.



Ruth Posadas

Federal Regulation Updates

The Food and Drug Administration (FDA) instituted a nationwide campaign to register all domestic food facilities, transporters, dealers, importers, wholesalers, manufacturers, processors and foreign companies who are exporting to the United States in accordance with the new bioterrorism legislation (Public Health Security and Bioterrorism Preparedness Act of 2002, Public Law 107-188). The deadline for registration was December 12, 2003 but was extended to April 2004. The Bureau is helping Mississippi seafood dealers register and is supplying them with information and application forms to facilitate their registration. Copies of the Interim Final Regulations under this legislation will be made available on CD for all interested. This disk will provide what you need to know to ensure compliance with the new FDA Bioterrorism Act Registration and Prior Notice Interim Final Rules. Our staff joined other agencies and businesses at the FDA Bioterrorism meeting in New Orleans in March.

Training Updates

In March, the DMR hosted the FDA's FD2042 Sanitary Survey for Shellfish Growing Waters training, held at the DMR office. Thirteen industry people from out-of-state (Georgia, North Carolina, Washington State, New Jersey, Louisiana, South Carolina, Mexico and Canada) attended the training as well as personnel from the DMR and the Mississippi Department of Environmental Quality.

So far this fiscal year, the DMR has permitted 12 new seafood dealers. Training is a big part of the technical assistance program. The Seafood Technology Bureau gave each one of the dealers an interim training to

guide them as they establish their business. Formal training comes from attending the Basic HACCP (Hazard Analysis Critical Control Point) and Sanitation training course, offered every year in Mississippi and in some other states. In February, a Basic HACCP (Hazard Analysis Critical Control Point) and Sanitation training was held at Mississippi State University-Coastal Research and Extension Center (MSU-CREC). Dr. Linda Andrews of the MSU-CREC Experimental Seafood Laboratory in Pascagoula, Miss., gave the training-workshop. This training is an Association of Food and Drug Officials (AFDO) certified course. More than 30 people attended the course.

Training is also available online. Cornell University offers the Seafood HACCP Alliance Internet Training Course at <http://seafoodhaccp.cornell.edu>.

Seafood Promotion

The Seafood Technology Bureau collaborated with the DMR's Mississippi Seafood Marketing Program and the Mississippi Restaurant Association in efforts to promote Mississippi seafood in Jackson during the legislative lunch reception and the inaugural dinner of Gov. Haley Barbour. Several Coast seafood dealers donated seafood for the two events: Golden Gulf Coast Packing Co., Inc.; C.F. Gollott & Son Seafood, Inc.; R.A. Lesso Seafood; Weems Bros. Seafood Co.; Gulfpride Enterprises; J&W Seafood, Inc.; Crystal Seas Seafood; and Ole Biloxi Oyster & Shrimp Co. Quality Poultry & Seafood cooked the seafood for the event. This was the first time that the Mississippi Restaurant Association showcased Mississippi seafood at those events.

DMR Seafood Safety Officer Jan Welker joined the DMR's Mississippi Seafood Marketing Program at the International Boston Seafood Show in March to help promote Mississippi seafood and the post-harvest processed technology information developed by Motivatit Seafood, Inc. and Ameripure Processing Co., Inc. of Louisiana and documented by the DMR in collaboration with MSU-CREC researchers.

Ruth Posadas is the director of the DMR's Seafood Technology Bureau.

NERR NOTES, continued from page 8

bellied Plovers, dowitchers, Sanderlings, Semipalmated Plovers, and peeps (a group of small sandpipers difficult to identify to species—at least from a distance). More rarely, American Oystercatchers, Red Knots, and Ruddy Turnstones were sighted. Most of the birds using the reserve were feeding and the habitats used for feeding varied by species. For example, Dunlin, plovers and peeps most commonly foraged in the mud while dowitchers were usually observed feeding in the water. True to their name, Sanderlings most often foraged in the sand.

GBNERR staff are also working with biologists from the Gulf Coast Research Laboratory to collect and identify invertebrates found in the areas where shorebird feeding was observed. Based on the preliminary results of the invertebrate sampling, mud habitats showed the highest abundance and diversity of invertebrates—exactly the places where most of the shorebirds were seen feeding.

In the future, food habit information of the shorebirds will be gathered to identify important prey items and better understand where these birds are feeding throughout the day. More research about the seasonal movements of shorebirds around the reserve will also be conducted by attaching small radio transmitters to the backs of birds, allowing the activities of birds to be recorded without having to directly observe the individual bird.

Data collected on the plant and animal resources of the GBNERR through research projects will contribute significantly to our understanding of the ecology of the reserve. Although just beginning, the Research Program at the GBNERR is attracting other researchers to the site to conduct similar studies. Data collected by these researchers will allow the reserve staff to better understand the estuarine system and develop a science-based management program.

Boat Smart!



Register now for a free boat and water safety course!

(228) 435-1332

See course schedule on page 2.

TOXIC WEED: Cogongrass threatens native habitats

Cogongrass (*Imperata cylindrica*), a native grass of Southeast Asia, is a tufted perennial herb that grows from a complex network of underground stems called rhizomes. A typical cogongrass plant is about two to four feet tall at maturity with green, brown, or red leaves one-half to one inch wide. The midveins of cogongrass leaves are usually whitish and slightly off-center, and the margins (edges) of the leaf blades are finely toothed and embedded with silica crystals. Its silvery-white flowers occur in cylindrical plume-like arrangements that may vary from three to 11 inches long and one to one and one-half inches wide.

Cogongrass is considered by scientists to be one of the 10 most noxious weeds in the world. It can reproduce rapidly from seeds and rhizomes, therefore it is highly conducive to spreading. It also produces chemicals that inhibit the growth of competing plants (a process known as allelopathy) and may form dense monocultures that drastically alter soil chemistry, increase fire intensity, and decrease ecological value. Furthermore, the high silica content, sharp leaf margins, and very low nutritional value of cogongrass make it poor forage for wildlife.

Cogongrass invades a wide variety of habitats. It is commonly found inhabiting pine savannahs, maritime forests, stream banks, roadsides, pastures and lawns, but does appear to be limited in its ability to inhabit shady or wet habitats.

Although economic impacts associated with cogongrass infestation can be difficult to calculate, scientists have investigated its impacts on forestry and agricultural resources and documented substantial financial losses. For example, a single herbicide



(Top photo): Cogongrass, an invasive species, reproduces rapidly and poses a problem to native habitats.

(Bottom photo): DMR Coastal Preserves Biologist Tim Blocker (left) and contractor John White apply an herbicide to control the spread of cogongrass.

application may cost hundreds of dollars per acre.

Cogongrass was first introduced into the United States near Mobile, Alabama in 1911 after being shipped from Japan as packing material for satsumas. Before 1920, it was introduced into Mississippi as a forage crop from the Philippines. Later, it was transplanted from Mississippi to Gainesville, Brooksville and Withlacoochee, Fla., for its use as forage and soil stabilizer. Since then,

it has rapidly reproduced —invading native habitats and altering ecological functions of several thousand acres within the Southern United States. Scientists estimate cogongrass has infested at least 240,000 acres in Alabama, Florida and Mississippi with significant infestations also occurring throughout Georgia, Louisiana, South Carolina, Texas and Virginia. Nevertheless, cogongrass is still commonly sold throughout the United States as an ornamental called Japanese bloodgrass, or 'Red Baron' bloodgrass.

One reasonably successful strategy for controlling cogongrass infestation is to burn or mow the plants, then, one to two weeks later, apply an approved glyphosate or imazapyr herbicide (i.e., Roundup, Arsenal, etc.) in prescribed concentrations. Another successful, but more expensive strategy, is to apply the glyphosate or imazapyr, then plow and reapply the glyphosate or imazapyr onto the exposed rhizomes. Both these strategies are best utilized in the fall before the first frost, but spring treatments may be used to help inhibit flowering and spreading of cogongrass during the growing season.

The control of cogongrass is considered a top priority of the Mississippi Coastal Preserves Program. Ongoing efforts help to ensure the sustainability and preservation of our precious, yet vulnerable native ecosystems, but more work is needed. Improved communication, education and cooperation between public land managers and private landowners is essential to the prevention of cogongrass infestations as well as post-treatment reinfestations from adjacent properties. By working together, we can prevent the spread of this invasive species.

Seafood Marketing Program takes MS seafood to Boston



From left: DMR Seafood Safety Officer Jan Welker, Crystal Seas business manager Jennifer Williams and operations manager Clayton Williams and DMR's Seafood Marketing Program Assistant Linda Bullard.

Crystal Seas Seafood attended the International Boston Seafood Show (IBSS) March 14-16 for the first time this year, co-exhibiting with the DMR's Mississippi Seafood Marketing Program and plan to return next year with their own booth.

Attended by more than 80 countries, the IBSS touches on every aspect of the nation's seafood industry. The show is the largest of its kind on the North American continent and hosts over 750 leading industry businesses, in addition to several hundred smaller seafood and seafood-related business concerns. Approximately 14,000 prospective seafood customers and buyers from around the world attended the event. DMR's Mississippi Seafood Marketing display booth reached over 1,600 prospective seafood customers during the three-day event. Mississippi State University's Experimental Seafood Laboratory under the supervision of Dr. Linda Andrews also exhibited with the DMR.



Take a Bow

Recognizing employees' commitment to excellence

Coastal Preserves employees attend wetland restoration training course



Josh Rowell



Tim Blocker

DMR Coastal Resource Management Specialists Tim Blocker and Josh Rowell attended a wetland construction and restoration training course January 27-30 in Orlando, Fla. The course provided insight into the preparation of wetland construction plans, including defining goals, determining physical structure of wetlands, preparation of hydrographs, and characterizing and modifying soil conditions and wetland plant habitats. The course included a one-day field trip to examine mitigation successes and failures and to identify measures that could be taken to rectify failures. Discussions also included concepts and current trends relating to wetland mitigation.

Local students get field trip to preserve



Josh Rowell (right) shows a student raccoon tracks along the shoreline at the Hancock County Marsh Coastal Preserve.

The DMR's commitment to providing public education and outreach was once again displayed as staff members took a group of students from Hancock County to visit one of DMR's Coastal Preserve properties. The tour, which took place at DMR's Ladner tract within the Hancock County Marsh Coastal Preserve, was coordinated when the parent of a home school student requested a visit after reading about the Preserves with her children.

Coastal Resource Management Specialists Josh Rowell and Tim Blocker guided the trip through the preserve where they instructed the students about the important habitats found within an estuarine ecosystem. The students and their parents were able to observe a large number of wetland plants, shorebirds and aquatic organisms and learn first hand about how they feed, where they live and how pollution affects their ability to survive.

Learning About Native Plants



From left: Dr. Robert H. Mohlenbrock, Kathy Lehr of Stennis Space Center, DMR Wetlands Permitting Bureau Director Jerry Brashier and DMR's CRMP GIS Specialist Grant Larsen.

Participants learned general plant identification principles during the "Wetland Plant Identification in Coastal Mississippi" course, held March 16-19. Dr. Robert H. Mohlenbrock instructed the Coastal Preserves-sponsored course.

DMR employees Jaime Drennen, Bradley Ennis, Willa Henrickson, Annie Nguyen, Ben Bloodworth, Cindy Henderson, Franklin Leach, Chris May, Grant Larsen, Kevin Schultz, Tim Blocker and Josh Rowell participated in the course.

Happy Anniversary!

These anniversaries mark employees' years of service with the Department of Marine Resources and the state of Mississippi.

(4/1/77) Dr. Fred Deegen	(6/1/00) Jude LeDoux
(4/1/89) David Dollar	(6/1/00) Lauren Thompson
(4/1/98) Bryce Gex	(6/1/02) Lauren Bass
(4/1/98) Michael Yonce	(6/1/02) Robin Zantow
(4/1/02) Bryant Klein	(6/11/01) Constance Owens
(4/11/88) Russell Doucet	(6/15/90) Christine Johnson
(5/1/88) Walter Chataginer	(6/21/83) Bill Collins
(5/1/01) Jennifer Buchanan	(6/24/93) Jimmy Hester
(5/1/01) Joyce Gagliano	(6/25/01) Grant Larsen
(6/1/00) Rudy Balus	

We thank them for their dedicated service to the management of our marine resources.



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KEEP HARRISON COUNTY BEAUTIFUL
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
MISSISSIPPI DEPARTMENT OF MARINE RESOURCES

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Biloxi Back Bay
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DMR Calendar

April 30-May 1

BioBlitz, Grand Bay National
Estuarine Research Reserve.
Contact: (228) 475-7047.

May 10-12

5th annual Coastal Development
Strategies Conference, Grand
Casino, Biloxi. For more information
contact the DMR at (228) 374-5000.

May 18

Mississippi Commission on Marine
Resources meeting, Bolton Build-
ing, 1141 Bayview Avenue, Biloxi,
9 a.m.

May 22

Trash Splash, part of the Great
American Cleanup, Biloxi Back
Bay, 8 a.m.-noon, (228) 374-5000.

June 10

Comprehensive Resource Man-
agement Plan meeting, Bolton
Building, 1141 Bayview Avenue,
Biloxi, 10 a.m.

June 15

Mississippi Commission on
Marine Resources meeting,
Bolton Building, 1141 Bayview
Avenue, Biloxi, 9 a.m.

July 4

Free Mississippi saltwater
sportfishing day

July 20

Mississippi Commission on
Marine Resources meeting,
Bolton Building, 1141 Bayview
Avenue, Biloxi, 9 a.m.

Doc's Fishing Tips

Fred Deegen, Ph.D., Deputy Director

If you're not having much luck fishing arti-
ficial baits, try your luck with some live
shrimp. These little morsels appeal to just
about everything that swims. Available at
most all coast fishing camps, live shrimp
can provide a fisherman with almost guar-
anteed summertime fishing success. Hook
one up on the end of your line and fish it
beneath a popping cork for best results in
the shallows.

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